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CENTRAL INTELLIGENCE AGENCY

28 February 1958

SUBJECT: TERMS OF REFERENCE: NIE 100-2-58: PROSPECTS FOR THE DEVELOPMENT OF NUCLEAR CAPABILITIES IN "FOURTH COUNTRIES"

#### THE PROBLEM

To estimate the capabilities and intentions of "fourth countries" with respect to the development and production of nuclear weapons and delivery systems over the next decade; and, to estimate the consequences of such development and production.

SCOPE

MIE 100-6-57, the first National Intelligence Estimate to deal directly with the Fourth Country problem, gave primary attention to capabilities for nuclear weapons production and the likelihood of such production. The present paper will again review fully the prospects for nuclear weapons production in all potential fourth countries - both in the Free World and in the Bloc. However, in line with the Post Mortem on NIE 100-6-57 (IAC-D-57/75, 26 August 1957), particular attention will be given to the prospects for cooperation among several

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capability, including advanced delivery systems. The paper will deal as fully as possible with the delivery system issue - what types may be selected, and for what reason, and what development and production of these is likely to be achieved - so that we can give as complete a picture as possible of the total nuclear capabilities of individual countries or combinations.

# I. CAPABILITIES FOR PRODUCTION OF NUCLEAR WEAPONS AND ADVANCED INLIVERY SYSTEMS

A. Update the estimates in NIE 100-6-57 with respect to the capabilities of fourth countries to produce nuclear weapons, including refined types, without special foreign assistance. Indicate the extent to which foreign assistance might alter these results. What appear to be the critical limitations to initial production by those countries having a potential for relatively early success, e.g.,

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By other countries which may wish to under-

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To what extent is the supply and political availability of uranium and other materials an obstacle to fourth power production?

What are the chances that these limitations might be overcome by

take the production of these weapons,

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tapping uncontrolled sources of uranium or by obtaining technical assistance from countries other than the US? In connection with advance weapon types, account should be taken of the possible development timetable of advanced types, particularly thermonuclear weapons and weapons adaptable for missile delivery.

B. Outline the capabilities of the <u>individual</u> countries discussed above to develop and produce delivery systems. What are the assets of these countries — in terms of developed prototypes and scientific and industrial resources — for the production of advanced aircraft and missiles? How are these capabilities likely to be affected by

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C. Outline the combined capabilities of

for the development and production of nuclear weapons and advanced

delivery systems. What are the numbers, types, and rates of weapons

productions which might be achieved? What would be the principal

limitations, in terms of materials, productive facilities, and

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technical skills? To what extent would these difficulties be

reduced by

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## II. PROBABLE COURSE OF ACTION BY FOURTH COUNTRIES

- A. In the light of the potentials and limitations discussed above, discuss the outlook for nuclear weapons and delivery systems. production by fourth countries in the next ten years.
- 1. What strategic and political considerations would argue for initiating nuclear weapon programs? What considerations argue against?
- 2. For those countries which are most likely to consider production of nuclear weapons, estimate the requirements—in terms of general quantities and types of weapons and systems for their delivery—which the governments of fourth countries might believe essential to national or group objectives, e.g., prestige and influence, reduced susceptibility to nuclear blackmail, armed neutrality.

  What would be the economic costs of meeting these requirements?

3. How do

affect the attitudes of fourth countries with respect to production

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In both cases

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discuss existing and specifically planned situations.

of nuclear weapons?

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4. In the absence of foreign offers to provide nuclear weapons under the control of recipient countries or international agreements limiting nuclear weapons production, what courses of action are likely to be followed by individual fourth countries? Are the committed to attaining fourth country status?

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5. How might the decisions of potential fourth countries to undertake nuclear weapons programs be affected

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- 6. How might the decisions of potential fourth countries be affected by the prospects for international agreements to limit the production, testing, deployment, or use of nuclear weapons?
- B. Discuss the outlook for cooperation among fourth countries in the production of nuclear weapons and delivery systems.

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1. What is the extent of cooperation

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in nuclear weapons? Missiles? How would each

of these countries be likely to weigh the advantages and disadvantages

of cooperation assuming: (a) the US opposes, or (b) the US strikes

a neutral attitude?

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2. What would be the attitude of these countries toward a cooperative effort in the manufacture of nuclear weapons if the US favored cooperation? If the US offered to provide advanced delivery vehicles? (We assume there would be provision for US participation in the control of these vehicles.)

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3. Assuming no change in present US policy, what is the likelihood and possible scope of a common effort 25X6 Under what circumstances might be able 25X6 to obtain the cooperation of

## EFFECTS OF INDEPENDENT AND COMBINED FOURTH FOWER PRODUCTION III. OF NUCLEAR WEAPONS SYSTEMS

If nuclear weapons and advanced delivery systems were produced over the next ten years in accordance with the above estimates

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what would be 25X6

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the overall political and strategic effects? In each case, consider the effects in terms of

B. How would the effects resulting from attainment of fourth

differ if country status

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